

Listing of Claims:

1. (Previously Amended) A method for supporting wireless communications, the method comprising steps of:

allocating a first channel to support message transmissions from a base station to multiple field station;

assigning a second channel to support message transmissions from the field units to the base station;

assigning time slots in the first and second channel for message transmissions between the base station and field units;

analyzing a marker contained in a message received in a time slot to determine a timing adjustment to be made at a field unit to synchronize the field unit with the base station; and

transmitting a feedback message containing the timing adjustment to the field unit.

2. (Original) A method as in claim 1 further comprising the step of:

partitioning the first channel into active and standby time slots, wherein active time slots correspond with field units transmitting a data payload on a reverse link traffic channel.

3. (Original) A method as in claim 2 further comprising the steps of:

detecting a request by a field unit to transmit a data payload from the field unit to the base station;

assigning the requesting field unit an active slot in the first channel; and
allocating traffic channels to support a data transfer between the requesting field unit and the base station.

4. (Previously Presented) A method as in claim 3 further comprising the step of: reassigning the field unit a standby time slot in the first channel after completion of the data transfer.
5. (Previously Presented) A method as in claim 3 further comprising the step of: maintaining synchronization between the field unit and the base station by analyzing at least one message received on a traffic channel and adjusting timing of the field unit based upon a feedback message to the field to advance or retard timing.
6. (Canceled)
7. (Previously Presented) A method as in claim 1 wherein the marker is a string of pilot symbols.
8. (Original) A method as in claim 1 further comprising the step of: dividing the first and second channels into a predetermined number of time slots to support periodic communications between the base station and each of multiple field units.
9. (Canceled)
10. (Previously Presented) A method as in claim 1, wherein the timing adjustment is transmitted to the field unit over a paging channel.

11. (Previously Presented) A method as in claim 1, wherein the timing adjustment is a multi-bit value transmitted to the field unit notifying the requesting field unit of an amount to advance or retard timing.
12. (Original) A method as in claim 1, wherein field units are notified of time slot assignment based upon messages over a forward link paging channel.
13. (Original) A method as in claim 1, wherein the base station analyzes a field unit message and determines whether to advance or retard timing of the field unit.
14. (Original) A method as in claim 1, wherein time slots are assigned in the first and second channel based on a predetermined offset.
15. (Previously Presented) A method as in claim 1, wherein the timing adjustment is a single bit in a time slot that indicates whether a corresponding field unit should advance or retard timing.
16. (Previously Presented) A method as in claim 1, wherein transmissions on the first channel are encoded using BCH.
17. (Previously Presented) A method as in claim 1, further comprising the step of:
assigning short pseudo-random noise (PN) codes for use by a field unit, a short PN code being transmitted by the field unit in an assigned time slot to provide an indication to the base station.

18. (Original) A method as in claim 17, wherein an assigned short PN code indicates a request by the field unit to transmit a data payload to the base station.

19. (Original) A method as in claim 17, wherein an assigned short PN code indicates a request by the field unit to remain in a standby mode.

20-24. (Canceled)

25. (Previously Presented) A method for supporting wireless communications between a base station and a plurality of field units, the method comprising the steps of:

allocating a first channel to support message transmissions from the field units to the base station;

assigning time slots in the first and second channel for message transmissions between the base stations and each field unit; and

assigning a set of codes for use by a field unit, each code corresponding to a message that is transmitted in a time slot on the second channel, a code being transmitted by the field unit on the second channel to provide an indication to the base station.

26. (Original) A method as in claim 25, wherein the set of codes is unique to each field unit.

27. (Previously Presented) A method as in claim 25, wherein the set of codes is a set of short pseudo-random noise (PN) codes.

Applicant: Nelson et al.
Application No.: 09/778,474

28. (Cancelled)

29. (Previously Presented) A method as in claim 25, wherein a code of the set of codes indicates a request by the field unit to be allocated reverse traffic channels for transmitting a data payload to the base station.